

To Analyse the Soil Characteristics of Kuan-Du Wetland

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Abstract

Kuan-Du wetland is located in the southwestern portion of Kuan-Du flooding plain and is very close to the intersection area of Ki-Long River and Dan-Shui River. The wetland is about eight to ten kilometer from the seacoast of Dan-Shui River. The area of the whole swamp land is around 55 hectares. Beside Ki-Long River and Dan-Shui River, which are mixed with tidal water, the major water resources for this wetland also include several minor streams contributing from both eastern and northern sites. In order to discover the characteristics of soil quality in Kuan-Du wetland, a sampling plan was conducted with a grid design. The method of Factor Analysis was used to the data acquired from chemically analyzed samples. Then the results were displayed by the geographic information system. The soil properties show that the most important latent factors are heavy metals、salinity and organic matters. The purpose of this study was to realize both the chemical and physical characteristics of these wetlands. The results can provide some useful in formations in environmental management of wetland.

Key Words: Wetland, Factor Analysis, and Geographic Information System